

## ABSTRACT

A mechanism to support remote mirroring of storage  
5 devices by data storage systems in a one-to-many switched  
environment. Each data storage system includes a disk  
director that is adapted to control at least one device group  
that is supported in a mirrored configuration with a  
corresponding device group controlled by one of the other data  
10 storage systems. For each device group and corresponding  
device group, there are first ports associated with the device  
group and second ports associated with the corresponding  
device group. A switch element is adapted to connect one of  
the first ports to at least one of the second ports so that  
15 data may be exchanged between the ports for each device group  
and corresponding device group. The disk director selects  
which first port is to be connected to which second port via  
the switch element in the establishment of a logical link.  
Thus, each port connected to the switch is capable of  
20 achieving multiple connections to multiple destinations for  
increased connectivity, redundancy and performance (load  
balance) without additional hardware.